



JCFB-310-60M 60cells

290-310W

High Efficiency Full Black Module



Resistance to salt-spray corrosion (IEC61701, certified to TÜV Rheinland test standard)



Resistance to ammonia Corrosion (IEC62716, certified to TÜV Rheinland test standard)



Fire safety (Class C, certified to TÜV Rheinland and Rheinland test standards)



Resistance to power attenuation passed TÜV Rheinland system voltage endurance test

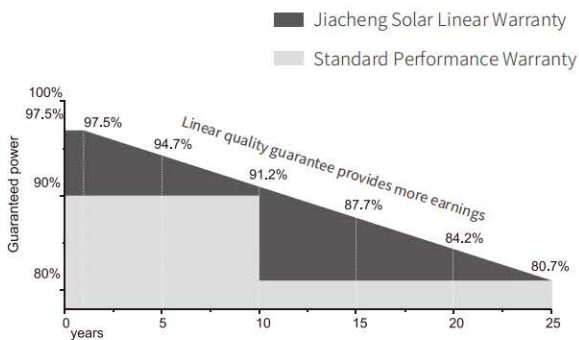


Excellent power output of modules in low light environment



100% double EL test enabling remarkable reduction of hidden crack rate of modules

### LINEAR PERFORMANCE WARRANTY



### COMPREHENSIVE CERTIFICATES



ISO 9001: Quality Management System  
 ISO 14001: Environmental Management System Standard  
 OHSAS 18001: International Occupational Health and Safety Assessment System Standard

### PRODUCT INSURANCE



Product quality & process guarantee



Linear power guarantee

# JCFB-310-60M 60cells

## ELECTRIC CHARACTERISTICS

Model of modules	JC-290-60M JC-290-60MH		JC-295-60M JC-295-60MH		JC-300-60M JC-300-60MH		JC-305-60M JC-305-60MH		JC-310-60M JC-310-60MH	
	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT
Maximum power — $P_{mp}$ (W)	290	213.5	295	217.1	300	220.8	305	224.5	310	228.2
Open-circuit voltage — $V_{oc}$ (V)	39.3	36.5	39.5	36.7	40.08	36.9	40.29	37.2	40.51	37.5
Short-circuit current — $I_{sc}$ (A)	9.44	7.74	9.56	7.78	9.56	7.82	9.75	7.89	9.85	7.93
Maximum power voltage — $V_{mp}$ (V)	31.7	29.7	31.9	30.0	33.12	30.2	33.39	30.5	33.48	30.8
Maximum power current — $I_{mp}$ (A)	9.15	7.18	9.25	7.24	9.06	7.30	9.16	7.37	9.26	7.41
Module efficiency — $\eta_m$ (%)	17.83		18.13		18.44		18.74		19.05	
Power tolerance (W)	(0,+3)									
Maximum system voltage (V)	1000V/1500V									
Maximum rated fuse current (A)	20									
Current operating temperature (°C)	-40~+85 °C									

**STC** (Standard Testing Conditions): Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25 °C , Spectra at AM1.5

**NOCT** (Nominal Operating Cell Temperature): Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C , Spectra at AM1.5, Wind at 1m/S

## STRUCTURAL CHARACTERISTICS

Module dimensions (L*W*H)	1640 x 992 x 35mm
Weight	17.5 kg
Number of cells	60 cells (6x10)
Cell	Monocrystalline 156.75x156.75mm
Glass	Tempered, 3.2mm AR, High transmittance, Low iron
Frame	Anodized aluminum alloy
Junction box	IP67
Output wire	4.0 mm <sup>2</sup> , wire length: 1000mm or Customized Length
Connector	MC4 Compatible
Mechanical load	5400 Pa

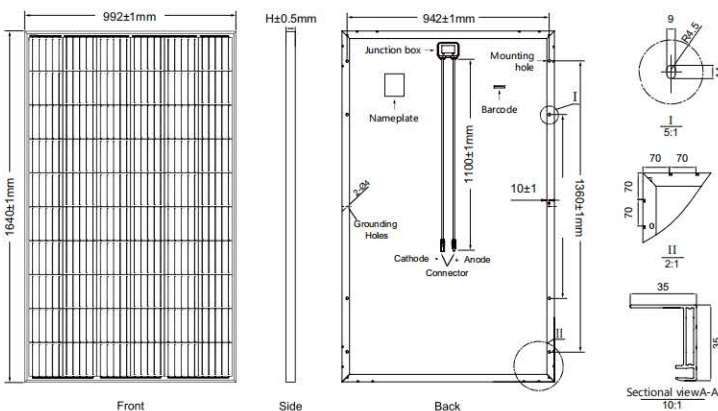
## TEMPERFORMANCE RATINGS

Temperature coefficient ( $P_{max}$ )	-0.40 %/°C
Temperature coefficient ( $V_{oc}$ )	-0.32 %/°C
Temperature coefficient ( $I_{sc}$ )	+0.05 %/°C
Nominal operating cell temperature	45±2 °C

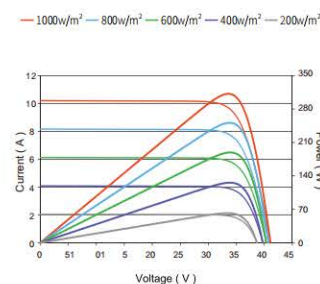
## PACKAGING CONFIGURATION

Container	20GP	40HQ
Quantity/pallet	30	31
Pallets/container	12	28
Quantity/container	360	952

## MODULE DIMENSIONS (mm)



Current-Voltage & Power-Voltage Curves (310W)



Temperature Dependence of  $I_{sc}$ ,  $V_{oc}$ ,  $P_{max}$

